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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Daniel Burton, et al.

Serial No. 09/685,238

Filed: October 10, 2000

For: SYSTEM AND METHOD FOR
SHARING FIELDS VIA A USER INTERNET
FILE

§ Attorney Docket No. 26530.18 (IDR-445)
§
§ Customer No. 27683
§
§ Group Art Unit: 2143
§
§ Examiner: Arrienne M. Lezak
§
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§

TRANSMITTAL

Mail Stop Appeal Brief - Patents
Commissioner of Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Enclosed are the following regarding the above-identified patent application:

1. Reply Brief (in triplicate);
2. Check in the amount of \$500.00;
3. Transmittal sheet (in triplicate); and
4. Return postcard.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the papers submitted herewith or to credit any overpayment to Deposit Account No. 08-1394.

Respectfully submitted,

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Kelly A. Moreau



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

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FILE SYSTEM

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REPLY BRIEF

Mail Stop: APPEAL BRIEFS-PATENT
Commissioner For Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Reply Brief is submitted in response to the Examiner's Answer dated March 16, 2005. Two additional copies of this Reply Brief are submitted herewith.

ARGUMENT

Issue 1.

The first issue for the Board's consideration is whether claims 29-31 are unpatentable under 35 U.S.C. §102(e) over O'Brien. MPEP § 2131 provides that "[t]o anticipate a claim, the reference must teach **every element** of the claim...." (emphasis added). However, O'Brien neither teaches nor shows all of the limitations in independent claim 29, which cites:

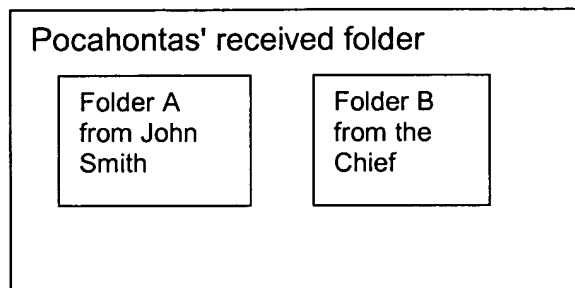
29. A user internet file system comprises:
a received folder that contains folders representing files and folders that have been shared with a user and the names of those who shared the files and folders with the user; and
a friends folder that contains the user's objects and community folders that contain information that are of interest to the user.

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Claim 29 teaches a received folder and a friends folder. The received folder "contains folders representing *files and folders that have been shared with a user* and the *names of those who shared the files and folders with the user.*" This is depicted in Fig. 1, where received folder 40 includes, for example, a collection of User 1 and User 1's folders that User 1 has chosen to share with the present user, User 2 and User 2's folders that User 2 has chosen to share with the present user, etc. (see Fig. 2 of the patent application) In other words, in this received folder are things that *other people are sharing with the user* along with *the names of those other people*. See for example a graphical representation below:



At no time does O'Brien teach or suggest this limitation. The Examiner specifically references O'Brien at Column 4, lines 3-6 as teaching for this limitation. Appellants strongly disagree. The language in Column 4, lines 3-6 states: "The user can ...even give *permission* to share files on the Shared Internet Storage Resource with others. Password protection or other security protocols may be used to limit or discriminate access to the user's files." (page 14, paragraph C; emphasis added) The Examiner asserted that in order to give permission, "it must maintain a list of user names and permissions, know [sic] as an 'access control list'. Said list inherently comprises 'user names and permissions' of all users, including the names of others granting permission to share files with user as well as names and permissions granted others by user." However, permission is not the same as the claimed received folder. The list in an access control list provides the names of users that may access the file, NOT the names of the users that gave permission to the owner of the folder access. The Examiner's characterization of the claimed elements shows a clear lack of understanding. Appellants also note that O'Brien mentions permission but does not elaborate on it, and the access control list is not mentioned by O'Brien in any way.

Appellant strongly objects to the manner that the Examiner rejects the claims. First, O'Brien is devoid of any mention of any mechanism of this received folder. Second, O'Brien does not teach an access control list. Third, even if O'Brien teaches an access control list (which it does not), by convention, an access control list does **not** provide the names of the users that has shared a folder with the current user who owns the received folder. In fact, page 6 lines 5-14 of the present application discusses an access control list and that it provides "a list of users and the rights they have to a [particular] file." A graphical representation of a typical access control list for a file A is shown below:

File A access control list

normal rights: John (read, lookup), Pocahontas (read, write, lookup)
negative rights: the Chief (read, write)

This is clearly not a received folder. An access control list provides a listing of names of users that have been granted certain rights to a file or folder. It does **not** provide a list of names of users that **gave** permission to the file or folder. It is abundantly clear that an access control list does not teach a received folder that contains "the names of those who shared the files and folders with the user." Appellants are puzzled and equally frustrated at the Examiner's continued insistence to paint something into something else it clearly is not. The rejection under 35 U.S.C. §102(e) based on O'Brien is improper and should be withdrawn.

The Examiner also continues to rely on the private and public folder icons shown in Fig. 13 of O'Brien as teaching of the claimed received and friends folders. Appellant must remind the Board again that O'Brien does not mention the words "private folder" and "public folder" anywhere else in the document. The Examiner augmented to her previously self-authored and baseless general statement that "all the access rights of a received folder correspond to the well-known access rights of a private folder" and "all the access rights of a friends folder correspond to the well-known access rights of a public folder," (Paper 6, page 12, paragraph 33) with:

"'public' and 'private' folders, (Fig. 13), which folders inherently contain information that is of interest to the user as evidenced by their mere presence within the user 'x:drive', which drive represents user chosen information. Moreover, as an 'x:drive' contains objects to be shared, (O'Brien – Col. 4, lines 1-6), anyone who accesses the 'x:drive' inherently has some interest in the objects stored therein."

as further support for the rejection. Nothing in O'Brien supports this assertion. Appellants respectfully submit that even if O'Brien teaches a private or public folder, which is arguable since the only manifestation of a private and public folder in any representation are icons labeled "private folder" and "public folder" in Fig. 13, the private or public folder is still not a received folder or friends folder and they do not share the same characteristics as either the received or the friends folders.

It is clear that O'Brien does not teach in any manner or form the elements of claim 29. It is well-established that "[a] claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Unio Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). It is impermissible to make the quantum leap from an Internet-based file storage system disclosed by O'Brien and the mere depiction of two folder icons to the claimed limitations without any teaching or suggestion. (*Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) ("The identical invention must be shown in *as complete detail as is contained in the claim.*" (emphasis added)). The Examiner has not satisfied with the requirements demanded by statutory or case law in forming a rejection under 35 U.S.C. §102. Therefore, this rejection is not supported by O'Brien and must be withdrawn.

Claim 29 has two dependent claims 30 and 31 that are also patentable over O'Brien for at least the same reasons set forth above.

Issue 2.

The second issue is whether claims 1-3, 8, 11-17, 19, 20, 25-28, and 32-34 are unpatentable under 35 U.S.C. §103(a) over O'Brien and Mishra. This issue will be discussed with specific reference to each independent claim below. The independent claims so rejected are claims 1, 8, 25, 29, 32 and 34.

Claim 1

Independent claim 1 stands rejected under 35 U.S.C. § 103(a) over O'Brien and Mishra. Applicants again traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 1. It is well settled that, in order to reject a patent application for obviousness, ***the prior art reference must teach or suggest all of the claimed limitations.*** *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, all words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). 35 U.S.C. §103(a) provides that:

[a] patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that ***the subject matter as a whole would have been obvious*** at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. Appellants respectfully submit that the Examiner failed to consider the claimed invention as a whole. As combined, O'Brien and Mishra clearly do not teach or suggest the limitations of claim 1.

Claim 1 cites,

1. A method for configuring an internet file system, the method comprising:
 - accessing, by a user, a server that is configured with an application;
 - creating, by the application, an internet file system for the user;
 - storing, by a directory, a home folder of the user, wherein folders and files in the home folder are available at a root of the internet file system;

providing, by the application, a first folder and a second folder in a root of the home folder, the first folder containing folders that represent *folders and files that have been shared with the user*, and the second folder containing *objects of the user and communities that are of interest to the user*; and

creating, by the application, an auxiliary class containing a first attribute, a second attribute, and a third attribute, wherein the first attribute is used *to quickly find other users that the folders and the files in the home folder have been shared with*, the second attribute is used to store *names of the other users* and a *path of the folders and the files that have been shared with the user*, and the third attribute is used to *allow the user and other users with common interests to share folders and files of the common interest*. (emphasis added)

The MPEP § 2142 provides:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness.

When evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. Contrary to the Examiner's assertion, neither O'Brien nor Mishra, nor their combination, teach, for example, "the first folder containing folders that represent *folders and files that have been shared with the user*, and the second folder containing *objects of the user and communities that are of interest to the user*." (emphasis added)

Applicants respectfully submit that neither O'Brien nor Mishra, nor their combination, teach or suggest, for example,

creating, by the application, an auxiliary class containing a first attribute, a second attribute, and a third attribute, wherein the first attribute is used to quickly find other users that the folders and the files in the home folder have been shared with, the second attribute is used to store names of the other users and a path of the folders and the files that have been shared with the user, and the third attribute is used to allow the user and other users with common interests to share folders and files of the common interest.

The Examiner, in support of her assertion that Mishra does provide such teaching, referenced generally the text in col. 4, line 63 to col. 6, line 13 of Mishra. In connection with this, the

Examiner believed that since Mishra teaches "the implementation of a class store in a group policy for purposes of application management utilizing the Windows NT Active Directory and a LDAP class store schema," it naturally follows that Mishra teaches claim 1. However, a careful examination of the referenced text and even the entire text of Mishra does not yield the claimed limitations. The Examiner seemingly reads more into the text of O'Brien and Mishra than what is in black ink on white paper. There is no support for the Examiner's assertions. Mishra, either alone or in combination with O'Brien, is devoid of any teaching or suggestion of *creating a first attribute* of an auxiliary class that is indicative of "*other users that the folders and the files in the home folder have been shared with,*" *creating a second attribute* of the auxiliary class that is indicative of "*names of the other users and a path of the folders and the files that have been shared with the user,*" and creating a *third attribute* of the auxiliary class that allows "the user and other users with common interests to share folders and files of the common interest."

The Examiner notes that "the specific organization of data within the folders is obviously one based strictly upon personal preference." Appellants disagree with this characterization of the claim. The language in claim 1 is much more than mere "organization of data" but sets forth what is the data and the steps for manipulating the data. It is settled law that such is patentable subject matter.

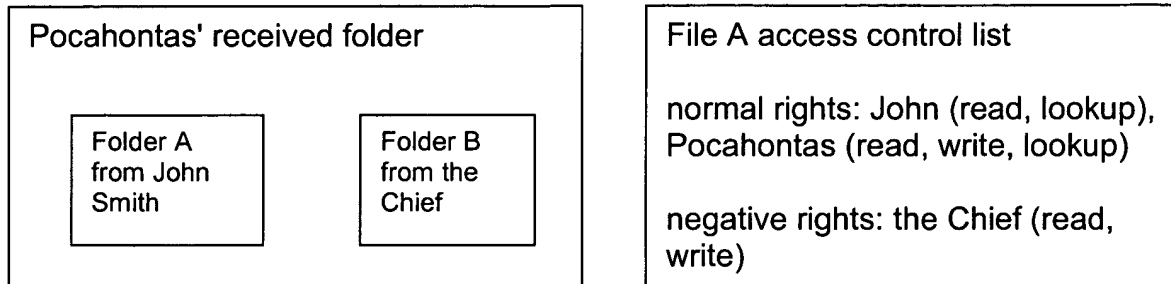
Appellants are puzzled by the Examiner's comment that, "Appellant merely asserts that Mishra does not disclose aspects of Appellant's claim limitations, and as such, has not demonstrated that Mishra does not actually teach the limitations of Claim 1." If the prior art does not disclose aspects of the claimed limitations (see *In re Royko*), does the Examiner still believe that the rejection is proper and the claim shall not prevail? O'Brien teaches, arguably, private and public folders and the concept of access permission. Mishra teaches,

Any directory container, e.g., site, domain or organizational unit, may be set up...to be centrally managed using group policy by specifying a group policy that contains the management policy for the organizational unit or domain...[T]he existence of a class store in a group policy indicates that application management is in effect for this group policy....[T]he class store 70 uses the Windows NT Active Directory 58 (FIG. 4) as its centralized store and ties into the administrative hierarchy defined thereby, i.e., the class store 70 is a container object (objectclass=ClassStore) in the Active Directory 58. The class store

schema is LDAP3.0 based, a standard protocol for Directory access. (Cols. 4-5 referenced by the Examiner on pp.19-20 of Examiner's Answer)

Appellants apologize for extensively quoting Mishra here, however this is necessary to fully show the inadequacy of the Examiner's rejection. There is devoid of any teaching of, for example, "creating, by the application, an auxiliary class containing a first attribute, a second attribute, and a third attribute, wherein the first attribute is used *to quickly find other users that the folders and the files in the home folder have been shared with*, the second attribute is used to store *names of the other users* and a *path of the folders and the files that have been shared with the user*, and the third attribute is used to *allow the user and other users with common interests to share folders and files of the common interest*." Appellants notes that the Examiner has not established the proper foundation for the rejections by merely quoting claim language word-for-word (and yet not using quotation marks and properly attributing the language to the claims) with general references to locations in O'Brien and Mishra that do not teach or suggest the claimed limitations, as well as by setting forth general self-authored baseless statements.

The Examiner also heavily relies on what is *inherent* in O'Brien and Mishra: "...in order for the system to limit or discriminate access to users, it must maintain a list of user names and permissions, know [sic] an 'access control list'. Said list *inherently* comprises 'user names and permissions' of all users, including the names of others granting permission to share files with user as well as names and permissions granted others by user." (p. 18, Examiner's Answer); "...standard access control *inherently* includes 'access control lists', which lists alone or within Active Directory obviously allow one to 'quickly find' other users with whom the folders and the files in the home folder have been shared, per the *inherent* user information..." (p.18-19, Examiner's Answer). Again, Appellants remind the Board that they are not attempting to patent the access control list, a well-known mechanism. The "user information" that the Examiner repeated referred to in an access control list is, as correctly characterized by the Examiner and described in the specification of the patent application, "who you are sharing (the data) with," and NOT "the second attribute...used to store *names of the other users* and a *path of the folders and the files that have been shared with the user*." Please also see the diagram repeated below for a clear depiction of the differences between a received folder/attribute and an access control list.



Arguments previously set forth regarding O'Brien are applicable to the rejection of claim 1 and are not repeated for the sake of brevity. Applicants respectfully submit that this argument that O'Brien and Mishra are statutorily inadequate as combined for rejecting claim 1 and the rejection must be withdrawn. This rejection should be withdrawn and claims 2-7 depending from claim 1 should also be deemed patentable.

Claim 8

Independent claim 8 was also rejected under 35 U.S.C. § 103(a) as being anticipated by O'Brien and Mishra. This rejection is respectfully traversed. Applicants traverse this rejection on the grounds that these references are defective in establishing a *prima facie* case of obviousness with respect to claim 8. Claim 8 cites,

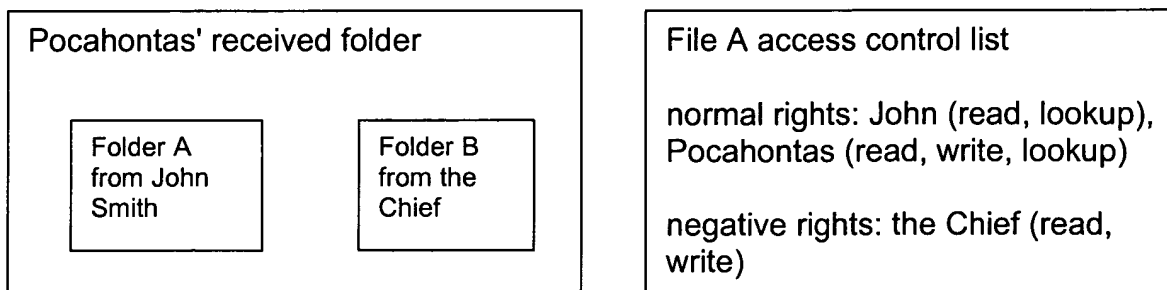
8. A method for file sharing, the method comprising:
sharing, by a first user, a file with a second user;
adding, by an application, the first user to a third attribute of the second user;
adding, by the application, the second user to a third attribute of the first user;
adding, by the application, a path of the shared file and a user name of the second user to a first attribute of the first user;
adding, by the application, the path of the shared file and a user name of the first user to a second attribute of the second user; and
making available, by the application, the first attribute through a folder of the second attribute, wherein the folder belongs to the second user.

The MPEP § 2142 provides:

... The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...

It is submitted that, in the present case, the Examiner has not factually supported a prima facie case of obviousness and the rejection must be withdrawn.

The O'Brien and Mishra references, either alone or combined, do not teach or suggest the elements of claim 8 and therefore do not render its subject matter obvious. The Examiner asserted that the standard access control arguably disclosed in O'Brien and Mishra and the Active Directory disclosed in Mishra render obvious "adding, by the application, a path of the shared file and a user name of the second user to a first attribute of the first user;" "adding, by the application, the path of the shared file and a user name of the first user to a second attribute of the second user;" and "making available, by the application, the first attribute through a folder of the second attribute, wherein the folder belongs to the second user." However, the Examiner is unable to specifically point to any language or teaching in O'Brien and Mishra that provide this teaching but rather relies on inherency and a clear misreading and misunderstanding of the claims. Further, the Examiner continues to show confusion in her equating access control as the same as a received folder, diagrammed below.



Thus, as set forth above and in prior papers, Appellants have shown that the Examiner's burden of factually supporting a *prima facie* case of obviousness has not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claim 25

Appellants have no more to add to the arguments specifically related to this claim. Appellants maintain that the Examiner's burden of factually supporting a *prima facie* case of obviousness has not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claim 28

Appellants have no more to add to the arguments specifically related to this claim. Appellants maintain that the Examiner's burden of factually supporting a *prima facie* case of obviousness has not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claim 32

Appellants have no more to add to the arguments specifically related to this claim. Appellants maintain that the Examiner's burden of factually supporting a *prima facie* case of obviousness has not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Claim 34

Appellants have no more to add to the arguments specifically related to this claim. Appellants maintain that the Examiner's burden of factually supporting a *prima facie* case of obviousness has not been met, and the rejection under 35 U.S.C. §103 should be withdrawn.

Issue 3.

The third issue before the Board is whether claims 4-7, 9, 10, 18, and 21-24 are unpatentable under 35 U.S.C. §103(a) over O'Brien and Mishra and further in view of Ferraiolo.

Independent claim 18 was rejected under 35 U.S.C. § 103(a) as being anticipated by O'Brien and Mishra, and further in view of Ferraiolo. Applicants traverse this rejection on the grounds that these references do not establish a *prima facie* case of obviousness with respect to claim 18. Claim 18 cites,

18. A method for creating user objects in a directory, the method comprising:

if a user shares a folder with another user who is not registered with an application in the directory, creating a temporary user object with an email address as a name of the another user;

submitting, by the another user, a registration form;

determining, by a script, if the email address corresponds with the another user; and

if the email address corresponds with the another user, updating the temporary user object based on information provided in the registration form.

O'Brien, Mishra and the Ferraiolo references do not teach, for example, "creating a temporary user object with an email address as a name of the another user", "submitting...a registration form", "determining...if the email address corresponds with the another user", and "updating the temporary user object" as is claimed in claim 18.

The Examiner referenced the teachings of discretionary access controls (DAC) as well as role-based access control (RBAC) from Ferraiolo as the basis for the rejection. Appellants specifically note that in role-based access control, "users *cannot* pass access permission on to other users at their discretion." (Page 3, third full paragraph). This is explicitly contrary to the teachings of the present claims. Even if we overlook the fact that the Examiner cited different and contrary teachings of DAC and RBAC, neither DAC nor RBAC teach the limitations of claim 18. Further, O'Brien and Mishra in combination with Ferraiolo also do not teach or suggest the claimed limitations.

The Examiner's attempt to re-characterize the basis for her rejection as not being based on DAC can be clearly disputed by noting that it was she, not Appellants, who specifically pointed to language on the bottom of page 2 to the top of page 3 describing DAC in her Office Action dated July 9, 2004 (page 8, paragraph 22, Paper 6). It does not matter whether Ferraiolo is a "seminal paper introducing RBAC" or whether it was "obliged to describe the state of the prior art," the facts clearly show that the Examiner based her rejection on two contrary techniques DAC and RBAC.

Further, it may be seen that O'Brien, by providing a database that stores the "metadata" associated with the files for searching purposes, Mishra, by providing a way to manage the deployment of applications for users or groups, and the Ferraiolo reference, by teaching role-based access or direct access methods, all teach away from the limitations of claim 18. None of these references teach "a user shar[ing] a folder with another user," but instead teach how to prevent unauthorized access in different ways. These references are therefore contrary to the claim in spirit or substance.

Appellants respectfully submit that the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection of claim 18 under 35 U.S.C. §103 should be withdrawn.

Claims 21-24 depend from independent claim 18 and provide additional limitations thereto. Claims 21-24 are therefore also allowable for at least the reasons set forth above. Claims 4-7, 9, and 10 also rejected over O'Brien-Mishra-Ferraiolo should also be allowable for at least some of the reasons set forth above.

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CONCLUSION

Accordingly, it is respectfully submitted that the references alone or in combination does not disclose or suggest the subject matter of claims 1-34. For all of the foregoing reasons and reasons set forth in the previously-submitted Appeal Brief, it is respectfully submitted that claims 1-34 be allowed. A prompt notice to that effect is respectfully requested.

Respectfully submitted,



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Date: May 3, 2005

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APPENDIX

1. A method for configuring an internet file system, the method comprising:
accessing, by a user, a server that is configured with an application;
creating, by the application, an internet file system for the user;
storing, by a directory, a home folder of the user, wherein folders and files in the home folder are available at a root of the internet file system;
providing, by the application, a first folder and a second folder in a root of the home folder, the first folder containing folders that represent folders and files that have been shared with the user, and the second folder containing objects of the user and communities that are of interest to the user; and
creating, by the application, an auxiliary class containing a first attribute, a second attribute, and a third attribute, wherein the first attribute is used to quickly find other users that the folders and the files in the home folder have been shared with, the second attribute is used to store names of the other users and a path of the folders and the files that have been shared with the user, and the third attribute is used to allow the user and other users with common interests to share folders and files of the common interest.
2. The method of claim 1 further comprising accessing, by the user, the internet file system.
3. The method of claim 1 further comprising attaching the auxiliary class to a user object when the folders and the files are shared with the user.
4. The method of claim 1 further comprising enabling the user to modify granted rights to the shared folders and the shared files.
5. The method of claim 1 further comprising enabling the user to disallow the sharing of the folders and the files.

6. The method of claim 1 further comprising populating the first folder with the stored names of the other users and the path of the folders and the files that have been shared with the user.

7. The method of claim 1 further comprising creating communities of users with common interests, wherein the communities are stored as groups in the directory and the users are members of the groups.

8. A method for file sharing, the method comprising:
sharing, by a first user, a file with a second user;
adding, by an application, the first user to a third attribute of the second user;
adding, by the application, the second user to a third attribute of the first user;
adding, by the application, a path of the shared file and a user name of the second user to a first attribute of the first user;
adding, by the application, the path of the shared file and a user name of the first user to a second attribute of the second user; and
making available, by the application, the first attribute through a folder of the second attribute, wherein the folder belongs to the second user.

9. The method of claim 8 further comprising, if the first user modifies rights to the first attribute, determining by the application which user the folder has been shared with and what rights the user has been granted:

10. The method of claim 8 further comprising notifying the second user, by the application, that the file has been shared with the second user.

11. The method of claim 8 further comprising placing, by the application, objects of the first user and the second user into a folder of the attribute that is located in an internet file system of the first user and in an internet file system of the second user.

12. The method of claim 11 further comprising sharing the objects by the first user and the second user.

13. The method of claim 8 wherein the first attribute is a shared path attribute.

14. The method of claim 8 wherein the second attribute is a received path attribute.

15. The method of claim 8 wherein the third attribute is a friend attribute.

16. The method of claim 8 wherein the first attribute, the second attribute, and the third attribute are located in a directory.

17. The method of claim 8 wherein the first user has a second attribute and the second user has a first attribute.

18. A method for creating user objects in a directory, the method comprising:
if a user shares a folder with another user who is not registered with an application in the directory, creating a temporary user object with an email address as a name of the another user;
submitting, by the another user, a registration form;
determining, by a script, if the email address corresponds with the another user; and
if the email address corresponds with the another user, updating the temporary user object based on information provided in the registration form.

19. The method of claim 18 further comprising, if there is no corresponding user object, creating a new user object based on the information provided.

20. The method of claim 18 further comprising monitoring, by the script, interests the another user has submitted in the registration form.

21. The method of claim 20 further comprising associating each interest of the another user with a group object in a container of the application.

22. The method of claim 21 further comprising adding the another user as a member of each interest group.

23. The method of claim 22 further comprising adding the each interest group to a list of friends of the another user.

24. The method of claim 18 wherein the information includes at least one item from a group consisting of:

- the email address;
- a user name;
- a password;
- a first name;
- a last name;
- an address; and
- interests.

25. A system for configuring an internet file system, the system comprises:
a server configured with an application, wherein a user accesses the application and the application creates an internet file system for the user; and

a directory that stores a home folder of the user, wherein folders and files in the home folder are available at a root of the internet file system, wherein the application further provides a plurality of folders in a root of the home folder, and wherein the application further creates an auxiliary class containing a plurality of attributes.

26. The system of claim 25 wherein the plurality of folders includes a first folder containing folders that represent folders and files that have been shared with the user, and a second folder containing objects of the user and communities that are of interest to the user.

27. The system of claim 25 wherein the plurality of attributes includes a first attribute used to quickly find other users that the folders and the files in the home folder have been shared with, a second attribute used to store names of the other users and a path of the folders and the files that have been shared with the user, and a third attribute used to allow the user and other users with common interests to share folders and files of the common interest.

28. A system for file sharing, the system comprises:
means for sharing, by a first user, a file with a second user;
means for adding, by an application, the first user to a third attribute of the second user;
means for adding, by the application, the second user to a third attribute of the first user;
means for adding, by the application, a path of the shared file and a user name of the second user to a first attribute of the first user;
means for adding, by the application, the path of the shared file and a user name of the first user to a second attribute of the second user; and
means for making available, by the application, the first attribute through a folder of the second attribute, wherein the folder belongs to the second user.

29. A user internet file system comprises:
a received folder that contains folders representing files and folders that have been shared with a user and the names of those who shared the files and folders with the user; and
a friends folder that contains the user's objects and community folders that contain information that are of interest to the user.

30. The file system of claim 29 further comprises a root similar to a home folder of the user.

31. The file system of claim 30 wherein files and folders in the home folder are available at the root of the file system.

32. A directory comprises:

- a user object;
- a home folder of the user, wherein the home folder is an attribute of the user object;
- an auxiliary class attached to the user object when files are shared with the user;
- a community folder that includes topics of interest to the user; and
- a group object associated with each topic of interest.

33. The directory of claim 32 wherein the auxiliary class is attached to the user object when the user shares files with other users.

34. A software application executable on a computer, the application comprising:

- creating a user internet file system;
- providing files in a root of a user's home folder; and
- creating an auxiliary class attached to an object of the user if the files are shared via the internet file system.